

# Heart Disease Analysis Project

## **Prepared by:**

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Roll: 09-006-22

Batch 06

Course Name: Data Science with Python

## **Instructor:**


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## ► **Objective**

- Analyze the heart.csv dataset to uncover patterns in heart disease data.
- Develop a predictive logistic regression model for heart disease classification.

- ▶ **Dataset Overview**
  - ▶ **Key Features:** Age, Cholesterol, Chest Pain Type, Blood Pressure, etc.
  - ▶ **Target:** Heart disease presence (1 = Yes, 0 = No).
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- ▶ **Key Findings**

- ▶ **Significant Predictors:**


- ▶ Age, Chest Pain Type, Maximum Heart Rate.
- ▶ Exercise-induced Angina positively correlated.

- ▶ **Model Accuracy:** 84%.

## ▶ **Methodology**

- ▶ Data Cleaning & EDA.
  - ▶ Visualization: Correlation Heatmaps, Age Distribution, etc.
  - ▶ Logistic Regression: Simple, interpretable model.
  - ▶ Evaluation: Accuracy, Precision, Recall.
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## ▶ **Future Work**

- ▶ Test advanced models (e.g., Random Forest, Neural Networks).
  - ▶ Integrate more features (e.g., lifestyle data).
  - ▶ Validate on external datasets for generalizability.
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